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A study to determine the reasons for selection of curriculum and vocation by 250 freshmen entering the University in September 1954. Attention was given to academic and personal progress as basis for total adjustment. Research was directed to the problem of trying to determine if there are certain weaknesses within the instructional and administrative programs that long-range planning may correct or improve.

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THE CURRICULUM AND VOCATIONAL CHOICES OF 250 ENTERING FRESHMAN ENGINEERS AT THE PENNSYLVANIA STATE UNIVERSITY, 1954-1955

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Statement of the Problem

What were the reasons for the selection of curriculum and vocation by 250 freshman men entering The Pennsylvania State University in September 1954? Attention was given to the academic and personal progress as basis for total adjustment. The research has tried to determine if there are certain weaknesses within the instructional and administrative programs that long range planning may correct or improve.

Summary of Procedures

The population studied included 250 freshmen enrolled in the engineering curriculum for the academic year 1954-1955, 30% of the total freshman engineering class of 831 men as of November 1, 1954.

Three student questionnaires were developed for distribution throughout the school year. The questionnaires were distributed in November 1954, January 1955, and in May 1955 by the following methods: the first questionnaire was given to the freshmen by the graduate resident counselors living in the campus residence halls; and the second and third questionnaires were distributed personally by the author to permit individual observation and personal interview with each of the men in the study. The scores of the Group II section of the Strong Vocational Interest Test for Men were tabulated, and the results were used as an evaluation of the interest scores and the ratings of the University for the 52 freshman engineers who withdrew from the University during the academic year.

Summary of the Findings

The study revealed that 45% of the freshman engineers studied finished in the upper 1/5th of their high school graduating classes and that 83% were in the upper 2/5ths. The study found that 79% of the freshmen had followed the academic or college preparatory curriculums in high school. This investigation showed that 36% of the freshmen came from high schools with enrollments of 100 to 500 students. The study found that 31% of the men selected their intended vocations in the 12th grade of high school; and 42% chose their college curriculum in the last year of high school.

By use of objective check-ratings of the University at three different times during the freshman year, the research revealed that the students' evaluations changed toward a dislike of the University as the school year progressed. The Chi-Squared statistic of relationship among the estimates of the University at three different times was significant at the .02 level. There appeared to be a negative relationship between the feelings for the University and the length of time spent at the school.

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Subjective reasons for liking and disliking the University at three different times during the year followed a trend: at the end of the first year, 25% of the freshmen disliked their instructors; 28% disliked the academic grading system; and 37% gave reasons for liking the University, while 62% gave reasons for dislike.

The study revealed that 52% of the freshmen participating in the study ranked in the A group of the Group II scores on the Strong Vocational Interest Test for Men, and 31% ranked in the B group. Since groups A and B indicated a high interest relationship with all successful men in the engineering fields, this study shows that 84% of the students in this study ranked high in relationship with other men in the engineering profession. There was a higher proportion of drop-outs in the C groups.

Conclusions

The freshmen waited until the 12th grade in high school or later to make their selected or intended vocation and college curriculum. They may need eariler guidance or continuing guidance.

The unstructured check-list indicates that freshmen enrolled in engineering have likes and dislikes for parts of the engineering program. The likes and dislikes change pattern at various times during the school year, and there is a general unfavorable pattern of change depending on the length of stay in the program.

The freshman engineers depend on fellow-freshmen and upper-classmen with some help from graduate resident counselors for most of their advice in adjusting to college during the first year.

Most of the drop-outs during the freshman year were associated with financial difficulties, poor grades, and a general dislike for the University. Low Strong Vocational Interest Scores are more common in the drop-out groups. There is a need for coordination of instruction and guidance within the curriculum.

Implications

The study suggests that administrators within the engineering curriculum examine the subject material for possible revision.

Possibly studies of the students' attitudes toward the University in other curriculums and other classes by academic and personnel administrators should be made.

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